AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-2. (Canceled)

3. (Currently Amended)   A method of transmitting data over a decentralised network, the method comprising:

receiving a plurality of data files at a relay device, each of the data files having a respective predetermined expiry time, and at least one of the data files being a compressed data file,

processing the data in the received plurality of data files by aggregating those of the received data files having a common predetermined expiry time to create a plurality of aggregated compressed data files, and

~~transmitting~~ broadcasting each ~~the~~ aggregated compressed data ~~files~~ file to a plurality of similar relay devices over the decentralised network,

wherein the compression and aggregation technique applied to the data is a Bloom filter process, and

wherein each individual aggregated compressed data file has a predetermined expiry time which is equal to the common predetermined expiry time of the received data files included in that individual aggregated compressed data file, and wherein the aggregated compressed data files are only forwarded if the aggregated compressed data files ~~they~~ have not exceeded their predetermined expiry time.

4. (Currently Amended) The A method according to claim 3, wherein data files received by a relay device having the same expiry time are aggregated into a single data file for further dissemination.

5. (Currently Amended) The A method according to claim 3, wherein the aggregated compressed data files are ~~transmitted~~ broadcasted using an epidemic dissemination process.

6. (Currently Amended) The A method according to claim 3, wherein each relay device stores each data file received, compares subsequently received data files with those already stored, and suspends the aggregating and forwarding process for any duplicate data files identified.

7. (Currently Amended) The A method according to claim 3, wherein at least some of the relay devices receive compressed data from associated data generation and compression means.

8.-9. (Canceled)

10. (Currently Amended) ~~Relay~~ A relay device comprising:

a receiver for receiving a plurality of data files, each of the data files having a respective predetermined expiry time, and at least one of the data files being a compressed data file,

an aggregation processor for processing the data in the received plurality of data files by

aggregating those of the received data files having a common predetermined expiry time to

create a plurality of aggregated compressed data files, and

a transmitter for selecting a plurality of similar relay devices and transmitting the

broadcasting each aggregated data files file to the selected relay devices over a decentralized

network,

means for determining a predetermined expiry time for each aggregated compressed data

file, the predetermined expiry time for said each aggregated compressed data file being equal to

the common predetermined expiry time of the received plurality of data files included in that

aggregated compressed data file, and selecting for transmission only those aggregated data files

that have not exceeded their expiry time;

wherein the relay device has a configuration to handle the data in the form of Bloom

filters.

11. (Currently Amended) The relay Relay device according to claim 10, wherein the

aggregation processor is arranged to aggregate data files having the same expiry time aggregated

into a single data file for further transmission.

12. (Currently Amended) The relay Relay device according to claim 11 having means

for disseminating a plurality of such aggregate data files having different expiry times.

13. (Currently Amended) The relay Relay device according to claim 10, wherein the

transmitter operates according to an epidemic dissemination process.

14. (Currently Amended)   The relay Relay device according to claim 10, comprising

data storage means for storing each data file received, and processing means for comparing each

stored data file with those subsequently received, and wherein the transmission means is

arranged to only transmit broadcast those received data files that are not duplicated in the data

storage means.

15. (Currently Amended)   The relay Relay device according to claim 10, further having

means to receive further data from data generation means, and means to compress the data for

transmission in an aggregated data file.

16. (Currently Amended)   The relay Relay device according to claim 10, having

analysis means for analysing incoming aggregate data files to capture data contained therein.

17. (Currently Amended)   A decentralised communications network comprising: in

which

a plurality of servers configured to collectively maintain a database that records event

reports, the plurality of servers forming an overlay network and intercommunicating using a

common messaging strategy based on a publisher forwarding scheme running over the overlay

network,

the servers having means being configured to aggregate compressed data messages having

a common predetermined expiry time and being received from one or more other servers to

create one or more compressed Bloom filter aggregate data files, and to broadcast the

compressed aggregate data file to one or more of the other servers,

at least one of the servers ~~having means~~being configured to generate data files in

response to specific events, and ~~means~~ to aggregate the data files so generated with the data files

received from the other servers,

the servers ~~have means~~being configured to modify the aggregate data files ~~they~~ the

servers receive before broadcasting them,

wherein each individual aggregate Bloom filter data file has a predetermined expiry time

which is equal to the common predetermined expiry time of the aggregate compressed data

messages included in that Bloom filter data file, the servers ~~have means for forwarding~~being

configured to forward only the Bloom filter data files that have not exceeded their predetermined

expiry times, using an epidemic dissemination process.

18. - 20. (Canceled)

21. (Currently Amended) ~~A~~ The decentralised communications network according to

claim 17, wherein individual servers have means for deleting from the data that is to be

forwarded any data that has been previously received and forwarded by the same device.

22. (Currently Amended) ~~A~~ The decentralised communications network according to

claim 17, wherein individual servers have means for extracting data required by a processing

device associated with the server.

23. (Currently Amended) The method according to claim 3, wherein the data that is received at the relay device from different sources at a same time frame is aggregated by the Bloom filter process so that in each said time frame only a single Bloom filter data file is ~~transmitted~~ broadcasted by the relay device.

24. (Previously Presented) The relay device according to claim 10, wherein the data that is received by the receiver of the relay device from different sources at a same time frame is aggregated by the Bloom filters so that in each said time frame only a single Bloom filter data file is ~~transmitted~~ broadcasted by the transmitter of the relay device.

25. (Currently Amended) The decentralised communications network according to claim 17, wherein the data files that are received ~~at~~ by at least one of the servers from different sources at a same time frame are aggregated by a Bloom filter process so that in each said time frame only a single Bloom filter data file is ~~transmitted~~ broadcasted by the at least one of the servers.

26. (New) The method according to claim 3, wherein said broadcasting is performed without a specified destination.

27. (New) The relay device according to claim 10, wherein said broadcasting is performed without a specified destination.

28. (New) The decentralised communications network according to claim 17, wherein said broadcasting is performed without a specified destination.